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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/937,145	09/21/2001	Ryoei Oka	50212-272	6213

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EXAMINER

EASHOO, MARK

ART UNIT	PAPER NUMBER
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1732

DATE MAILED: 06/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/937,145

Applicant(s)

OKA ET AL.

Examiner

Mark Eashoo, Ph.D.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) 7-8 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date various.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

Applicant's election of group I, claims 1-6, in the reply filed on 26-MAR-2004 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Claims 7-8 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected claim grouping, there being no allowable generic or linking claim. Election was made without traverse in the reply filed on 26-MAR-2004.

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 3 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 3 recites a cooling medium of "air" which according to claim 1 is used in a step of "spraying". This limitation is indefinite because the act of 'spraying air' appears to conflict with the general meaning of "spraying". The term "spraying" commonly means "to disperse a liquid in a jet of droplets" (see attached definition from dictionary.com). Since air is generally not a liquid, the limitation is unclear if liquid air is applied or if it is merely intended that air is blown onto the surface of the extrudate.

Where applicant acts as his or her own lexicographer to specifically define a term of a claim contrary to its ordinary meaning, the written description must clearly redefine the claim term and set forth the uncommon definition so as to put one

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reasonably skilled in the art on notice that the applicant intended to so redefine that claim term. *Process Control Corp. v. HydReclaim Corp.*, 190 F.3d 1350, 1357, 52 USPQ2d 1029, 1033 (Fed. Cir. 1999).

For the purpose of further examination, the limitation of "spraying air" has been interpreted as merely 'blowing air', as commonly known in the art, onto the surface of the extrudate as determined from the instant specification.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-4 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Danko (US Pat. 3,886,250).

Regarding claims 1-3: Danko teaches the basic claimed process of extruding a shaped profile, comprising: extruding a profile (Fig. 8); pre-cooling an extrudate by spraying/blowing a cooling medium (Fig. 8, element 48); and further cooling by passing an extrudate through water (Fig. 8, element 44).

Danko does not specifically teach pre-cooling to a temperature below a softening temperature or a rod-like extrudate. However, Danko does teach that the cooling temperatures must be altered to suit the shape of the extrudate and for the particular thermal properties of the plastic used. As such, it would have been obvious to a person having ordinary skill in the art to have altered

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or optimized the cooling temperatures to below the glass transition temperature or a softening temperature, as commonly practiced in the art, in the process of Danko, because Danko suggests that the material is to be cooled to a "non-sticky" state (1:30-40).

Although Danko does not teach extruding a rod-like profile, such profile shapes are widely known in the extrusion art and would have been used in the process of Danko in order to form a rod-like trim bead (ie. for economic benefit of selling another product).

Regarding claim 4: Danko teaches spraying water droplets onto the periphery of an extruded profile in a pre-cooling step (Fig. 8, element 64).

Regarding claim 6: Danko teaches a first pre-cooling step of blowing air (Fig. 8, element 48) and a second pre-cooling step of spraying water droplets onto the periphery of an extruded profile in a pre-cooling step (Fig. 8, element 64).

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Danko (US Pat. 3,886,250) as applied to claims 1-4 and 6 above, and further in view of Palmer (US Pat. 4,691,758).

Regarding claim 5: Danko does not teach cooling water having a specific size. Nonetheless, Palmer teaches that cooling water droplet size is known to be optimized (6:20-40). The examiner takes Official notice that cooling water droplet sizes in the range of 20-80 microns is known in the extrusion art. Danko and Palmer are combinable because they are concerned with a similar technical difficulty, namely, cooling indefinite length molded articles. At the time of invention a person having ordinary skill in the art would have found it obvious to have optimized cooling water droplet sizes, as taught by Palmer, in the process of Danko, since Palmer suggests that such optimization of droplet size is used to optimize the cooling effect.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Schneider teaches rod-like extrusion cooled in multiple stages. Thompson, Wegmaier et al., Dixon, Hartitz, and Groeblicher teach the basic state of the art. Allen et al. teaches cooling water droplets of about 10 microns. Shirley, Jr. et al. teaches cooling water droplets of about 5-60 microns.

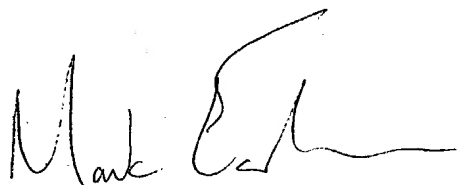
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Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark Eashoo, Ph.D. whose telephone number is (571) 272-1197. The examiner can normally be reached on 7am-3pm EST, Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Colaanni can be reached on (571) 272-1196. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Mark Eashoo, Ph.D.
Primary Examiner
Art Unit 1732

6/22/04

6/22/2004
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